

ABSTRACT

A hardware assembly is provided for controlling a first portion of gas and a second portion of gas in a furnace. The first portion of the gas is introduced to a center opening region of a stack of porous structures. The
5 second portion of the gas is introduced to an outer region of the stack of porous structures. Most of the gas flows out of the hardware assembly from either the center opening region or the outer region while some of the gas flows out through small holes from the other region. A densification method is also provided with two densification processes in which the gas flows in
10 opposite directions in the two densification processes.